



1641

PATENT

Attorney Docket No. A-70197-1/RMS/AXG/JML

Dorsey File No. 469008-00020

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

SHIEH et al.

Serial No.: 10/028,277

Filing Date: December 19, 2001

For: **BIOCHANNEL ASSAY FOR
HYBRIDIZATION WITH
BIOMATERIAL**

Examiner: To Be Assigned

Art Unit: 1641

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450 on January 5, 2004.

Signed: Joyce Abriam

Joyce Abriam

**INFORMATION DISCLOSURE STATEMENT
AND
STATEMENT OF RELATEDNESS**

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicant wishes to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A-B. Since copies of the references, marked with an asterisk (*), were provided either by the Applicant or the Examiner in the following related U.S. Application: Serial No. 09/438,600, filed November 12, 1999, upon which the instant application relies for its priority date, in accordance with 37 C.F.R. § 1.98(d), no copies of these references are enclosed.

In addition, Applicant wishes to draw the attention of the U.S. Patent and Trademark Office to the references cited, previously not disclosed in the following related U.S. Application Serial No. 09/438,600, filed November 12, 1999, on the accompanying form PTO/SB/8A-B not marked with an asterisk. Copies of the references are enclosed.

With respect to patent applications, the applicants point out their duty under M.P.E.P. §2001.06(b) to disclose relevant patent applications of which they are aware. To this end, the applicants draw the Examiner's attention to the following patent applications:

1. U.S.S.N. 08/873,597, filed June 12, 1997;
2. U.S.S.N. 08/873,978, filed June 12, 1997;
3. U.S.S.N. 09/135,183, filed August 17, 1998;
4. U.S.S.N. 09/295,691, filed April 21, 1999;
5. U.S.S.N. 09/397,957, filed September 17, 1999;
6. U.S.S.N. 09/440,371, filed November 12, 1999;
7. U.S.S.N. 09/452,277, filed February 3, 1999;
8. U.S.S.N. 09/472,657, filed December 27, 1999;
9. U.S.S.N. 09/520,477, filed March 8, 2000;
10. U.S.S.N. 09/557,577, filed April 21, 2000;
11. U.S.S.N. 09/602,618, filed June 22, 2000;
12. U.S.S.N. 09/621,275, filed July 20, 2000;
13. U.S.S.N. 09/626,096, filed July 26, 2000;
14. U.S.S.N. 09/712,792, filed November 13, 2000;

15. U.S.S.N. 09/760,384, filed January 11, 2001;
19. U.S.S.N. 09/993,342, filed November 5, 2001; and
20. U.S.S.N. 10/412,660, filed April 11, 2003.

None of the foregoing references is believed to disclose the invention as claimed.

Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As far as is known to the undersigned, this Information Disclosure Statement is being filed within three months of the filing date of a national application, within three months of the date of entry of the national state in an international application, or before the mailing date of a first Office Action on the merits as set forth in 37 C.F.R. § 1.97(b), and therefore no fee is required.

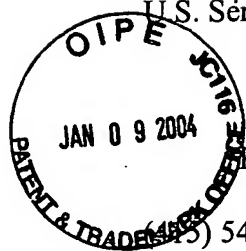
While no fee is believed to be due, if this belief is in error the Commissioner is authorized to charge any additional fees, including extension fees or other relief which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. 469008-00020 [A-70197-1/RMS/AXG/JML]).

U.S. Serial No. 10/028,277

PATENT

Attorney Docket No. A-70197-1/RMS/AXG/JML

Dorsey File No. 469008-00020



Please direct any calls in connection with this application to the undersigned at

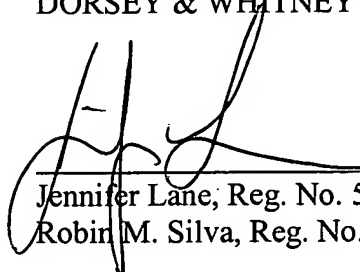
(415) 544-7025.

Respectfully submitted,

DORSEY & WHITNEY LLP

Dated: 5 Jan 2004
Dorsey & Whitney LLP
Intellectual Property Department
Four Embarcadero Center, Suite 3400
San Francisco, CA 94111-4187
Telephone: (415) 544-7025
Facsimile: (415) 398-3249

BY:

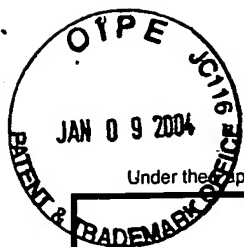

Jennifer Lane, Reg. No. 51,916 for
Robin M. Silva, Reg. No. 38,304

Customer Number: 32940

Attachments:

Form PTO/SB/8A-B, Substitute for form PTO 1449

161 References



Substitute PTO/SB/8A-B (08-00)

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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<p>Substitute for form 1449A/PTO (Modified)</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p>(use as many sheets as necessary)</p>			Complete if Known	
			Application Number	10/028,277
			Filing Date	December 19, 2001
			First Named Inventor	Chan-Ling Shieh
			Group Art Unit	1641
			Examiner Name	To Be Assigned
Sheet 1 of 8	Attorney Docket Number	A-70197-1/RMS/AXG/JML		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	4,415,732	11-15-1983	Caruthers et al.	
	A2	4,683,195	07-28-1987	Mullis et al.	
	A3	4,713,347	12-15-1987	Mitchell et al.	
	A4	4,755,458	07-05-1988	Rabbani et al.	
	A5	4,840,893	06-20-1989	Hill et al.	
	A6	4,920,047	04-24-1990	Giaever et al.	
	A7	5,015,569	05-14-1991	Pontius	
	A8	5,064,618	11-12-1991	Baker et al.	
	A9	5,066,372	11-19-1991	Weetall	
	A10	5,071,531	12-10-1991	Soane	
	A11	5,126,022	06-30-1992	Soane et al.	
	A12	5,130,238	07-14-1992	Malek et al.	
	A13	5,135,627	08-04-1992	Soane	
	A14 *	5,147,607	09-15-1992	Mochida	
	A15	5,192,507	03-09-1993	Taylor et al.	
	A16	5,296,375	03-22-1994	Kricka et al.	
	A17 *	5,304,487	04-19-1994	Wilding et al.	
	A18	5,455,166	10-03-1995	Walker	
	A19	5,486,335	01-23-1996	Wilding et al.	
	A20	5,494,810	02-27-1996	Barany et al.	
	A21	5,498,392	03-12-1996	Wilding et al.	
	A22	5,505,321	04-09-1996	Caron et al.	
	A23	5,519,635	05-21-1996	Miyake et al.	
	A24	5,552,270	09-03-1996	Khrapko et al.	
	A25	5,569,364	10-29-1996	Hooper et al.	
	A26 *	5,585,069	12-17-1996	Zanzucchi et al.	
Examiner Signature				Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

⁶ Applicant is to place a check mark here if English Language Translation is attached.

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			First Named Inventor	Chan-L ng Shieh	
			Group Art Unit	1641	
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	A27	5,587,128	12-24-1996	Wilding et al.	
	A28	5,591,578	01-07-1997	Meade et al.	
	A29	5,593,838	01-14-1997	Zanzucchi et al.	
	A30	5,595,908	01-21-1997	Fawcett et al.	
	A31	5,603,351	02-18-1997	Cherukuri et al.	
	A32	5,605,662	02-25-1997	Heller et al.	
	A33	5,620,850	04-15-1997	Bamdad et al.	
	A34	5,631,337	05-20-1997	Sassi et al.	
	A35	5,632,876	05-27-1997	Zanzucchi et al.	
	A36	5,632,957	05-27-1997	Heller et al.	
	A37	5,635,358	06-03-1997	Wilding et al.	
	A38	5,637,469	06-10-1997	Wilding et al.	
	A39	5,643,738	07-01-1997	Zanzucchi et al.	
	A40	5,653,939	08-05-1997	Hollis et al.	
	A41	5,681,484	10-28-1997	Zanzucchi et al.	
	A42	5,694,932	12-09-1997	Michel	
	A43	5,705,346	01-06-1998	Okamoto et al.	
	A44	5,705,348	01-06-1998	Meade et al.	
	A45 *	5,716,825	02-10-1998	Hancock et al.	
	A46	5,726,026	03-10-1998	Wilding et al.	
	A47	5,727,548	03-17-1998	Hill et al.	
	A48	5,728,532	03-17-1998	Ackley	
	A49	5,741,462	04-21-1998	Nova et al.	
	A50	5,747,169	05-05-1998	Fan et al.	
	A51	5,750,015	05-12-1998	Soane et al.	
	A52	5,755,942	05-26-1998	Zanzucchi et al.	

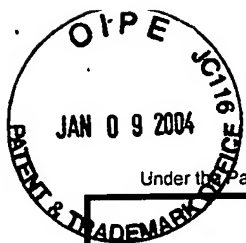
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			Application Number	10/028,277	
			Filing Date	Decemb r 19, 2001	
			First Named Inventor	Chan-L ng Shieh	
			Group Art Unit	1641	
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Sheet	3	of	8	Attorney Docket Number	A-70197-1/RMS/AXG/JML

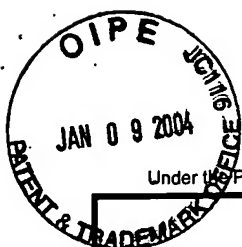
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	A53	5,756,050	05-26-1998	Ershow et al.	
	A54 *	5,759,866	06-02-1998	Machida et al.	
	A55	5,770,029	06-23-1998	Nelson et al.	
	A56	5,770,369	06-23-1998	Meade et al.	
	A57	5,780,235	07-14-1998	Bandman et al.	
	A58	5,824,473	10-20-1998	Meade et al.	
	A59	5,837,859	11-17-1998	Teoule et al.	
	A60 *	5,843,767	12-01-1998	Beattie	
	A61	5,849,486	12-15-1998	Heller et al.	
	A62	5,863,502	01-26-1999	Southgate et al.	
	A63	5,866,345	02-02-1999	Wilding et al.	
	A64 *	5,942,443	08-24-1999	Parce et al.	
	A65	5,952,172	09-14-1999	Meade et al.	
	A66	5,976,802	11-02-1999	Ansorge et al.	
	A67	6,013,170	01-11-2000	Meade	
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	A69	6,063,573	05-16-2000	Kayyem	
	A70 *	6,063,589	05-16-2000	Kellogg et al.	
	A71	6,071,699	06-06-2000	Meade et al.	
	A72	6,087,100	07-11-2000	Meade et al.	
	A73	6,090,933	07-18-2000	Kayyem et al.	
	A74	6,096,825	08-01-2000	Garnier	
	A75	6,100,045	08-08-2000	Van Es	
	A76	6,100,099	08-08-2000	Gordon et al.	
	A77	6,114,122	09-05-2000	Besemer et al.	
	A78	6,150,119	11-21-2000	Kopf-Sill et al.	
	A79	6,150,180	11-21-2000	Parce et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			C m p l t e i f K n w n		
			Application Number	10/028,277	
			Filing Date	D c m b r 19, 2001	
			First Named Inventor	Chan-L ng Shieh	
			Group Art Unit	1641	
			Examiner Name	To Be Assigned	
Sheet	4	of	8	Attorney Docket Number	A-70197-1/RMS/AXG/JML

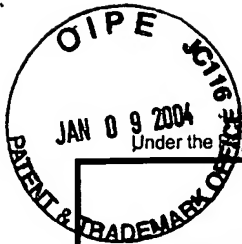
U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A80	6,177,250 B1	01-23-2001	Meade et al.	
	A81	6,180,352 B1	01-30-2001	Meade et al.	
	A82	6,197,515 B1	03-06-2001	Bamdad et al.	
	A83	6,197,595 B1	03-06-2001	Anderson et al.	
	A84	6,200,761 B1	03-13-2001	Meade et al.	
	A85	6,203,758 B1	03-20-2001	Marks et al.	
	A86	6,207,369 B1	03-27-2001	Wohlstadter et al.	
	A87	6,221,583 B1	04-24-2001	Kayyem et al.	
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	A95	6,268,149 B1	07-31-2001	Meade et al.	
	A96	6,268,150 B1	07-31-2001	Meade et al.	
	A97	6,277,576 B1	08-21-2001	Meade et al.	
	A98	6,290,839 B1	09-18-2001	Kayyem et al.	
	A99	6,291,188 B1	09-18-2001	Meade et al.	
	A100	6,300,141 B1	10-09-2001	Segal et al.	
	A101	6,306,584 B1	10-23-2001	Bamdad	
	A102	6,306,590 B1	10-23-2001	Mehta et al.	
	A103	6,322,979 B1	11-27-2001	Bamdad et al.	
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	A105	6,368,871 B1	04-09-2002	Christel et al.	
	A106	6,432,723 B1	08-13-2002	Plaxco et al.	

Examiner Signature		Date Considered	
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	A107	6,472,148 B1	10-29-2002	Bamdad et al.	
	A108	6,479,240 B1	11-12-2002	Kayyem et al.	
	A109	6,495,323 B1	12-17-2002	Kayyem et al.	
	A110	6,541,617 B1	04-01-2003	Bamdad et al.	
	A111	6,572,830 B1	06-03-2003	Burdon et al.	
	A112	6,592,696 B1	07-15-2003	Burdon et al.	
	A113	6,600,026 B1	07-29-2003	Yu	
	A114	6,623,945 B1	09-23-2003	Nair et al.	
	A115	US 2002-0006643 A1	01-17-2002	Kayyem et al.	
	A116	US 2002-0009810 A1	01-24-2002	O'Connor et al.	
	A117	US 2002-0177135 A1	11-28-2002	Doung et al.	
	A118	US 2003-0087228 A1	05-08-2003	Bamdad et al.	
	A119				

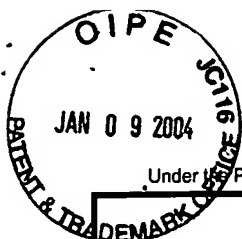
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	B1	EP 0 478 319 B1	04-02-1997	Toshiba		
	B2 *	EP 0 527 905 B1	08-05-1991	Ekström et al.		
	B3	EP 0 637 996 B1	07-23-1997	The Trustees of the University of Pennsylvania		
	B4	EP 0 637 998 B1	07-31-1996	The Trustees of the University of Pennsylvania		
	B5 *	EP 0 969 083 A1	01-05-2000	Olympus Optical Co. Ltd.		
	B6	EP 1 183 102 B1	03-06-2002	Clinical Micro Sensors		
	B7	WO 00/62931 A1	10-26-2000	Clinical Micro Sensors		
	B8	WO 01/06016 A2, A3	01-25-2001	Clinical Micro Sensors		
	B9	WO 01/35100 A2	05-17-2001	Clinical Micro Sensors		

Examiner Signature	Date Considered
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Compl t if Kn wn		
			Application Number	10/028,277	
			Filing Date	D c mber 19, 2001	
			First Named Inventor	Chan-L ng Shi h	
			Group Art Unit	1641	
			Examiner Name	To Be Assigned	
Sheet	6	of	8	Attorney Docket Number	A-70197-1/RMS/AXG/JML

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Citg No.	Foreign Patent Document Country Code ² Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	B10	WO 01/54813 A2, A3	08-02-2001	Clinical Micro Sensors		
	B11	WO 02/43864 A2	06-06-2002	Clinical Micro Sensors		
	B12	WO 86/05815 A1	10-09-1986	Genetics International Inc		
	B13 *	WO 93/22053 A1	11-11-1993	Trustees to the Univ. of Pennsylvania		
	B14	WO 96/15450 A1	12-17-1996	David Samoff Research Center		
	B15	WO 96/15576 A1	05-23-1996	David Samoff Research Center		
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	B22	WO 97/31256 A2, A3	08-28-1997	Cornell Research Foundation		
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	B33	WO 99/29711 A1	06-17-1999	Nanogen Inc		
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	B36	WO 99/67425 A2, A3	12-29-1999	Clinical Micro Sensors		
	B37					
	B38					
	B39					

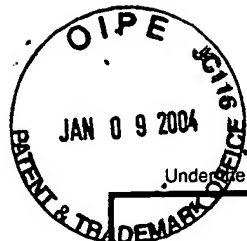
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/028,277	
			Filing Date	December 19, 2001	
			First Named Inventor	Chan-Ling Shieh	
			Group Art Unit	1641	
			Examiner Name	To Be Assigned	
Sheet	7	of	8	Attorney Docket Number	A-70197-1/RMS/AXG/JML

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

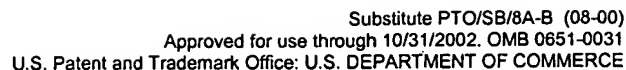
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1 *	BECKER, H., et al., "Microfluidic manifolds by polymer hot embossing for μ -TAS applications", <i>Micro-TAS'98, Banff</i> , 1998, pp. 253-256.	
	C2 /	CANTOR, C.R. et al., "Report on the Sequencing by Hybridization Workshop," <i>Genomics</i> , 1992, 13:1378-1383.	
	C3 *	CHANG, "Immobilized enzymes and their biomedical applications", In <i>Immobilized Enzymes, Antigens, Antibodies, and Peptides</i> (Ed. Weetall), New York, Marcel Dekker, Inc., 1975, pp. 245-292.	
	C4 /	<i>Commerce Business Daily Issue</i> , September 26, 1996, PSA#1688.	
	C5 /	DONTHA et al., "Generation of Biotin/Avidin/Enzyme Nanostructures with Maskless Photolithography," <i>Anal. Chem.</i> , 1997, 69:2619-2625.	
	C6 /	DROBYSHEV, A. et al., "Sequence Analysis by Hybridization with Oligonucleotide Microchip: Identification of β -thalassemia Mutations," <i>Gene</i> , 1997, 188:45-52.	
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Sheet

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of

8

Application Number

10/028,277

Filing Date

Decemb r 19, 2001

First Named Inventor

Chan-L ng Shi h

Group Art Unit

1641

Examiner Name

To Be Assigned

Attorney Docket Number

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